

## **REMARKS**

This Application has been carefully reviewed in light of the Final Office Action mailed August 22, 2007. At the time of the Final Office Action, Claims 1-4, 6-12, 16 and 18-26 were pending in this Application. Claims 1, 3, 6-12, 16, 18 and 21-25 were rejected. Claims 2, 4, 19, 20 and 26 have been withdrawn from consideration. Applicants respectfully request reconsideration and favorable action in this case.

### **Election/Restriction Requirement**

Accordingly, Applicant hereby withdraws Claim 26 without prejudice or disclaimer and submits that the cancelled claims are subject to the filing of a divisional application.

### **Double Patenting Rejection**

The Examiner provisionally rejected Claims 1-4, 6-12, 16 and 18-25 based on the judicially created double patenting doctrine over U.S. Patent No. 6,652,561 issued to Tran (hereinafter "Tran application") stating that the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter.

Applicants respectfully traverse the rejection. However, to reduce the cost and time required to obtain patent protection, a Terminal Disclaimer filed in compliance with 37 C.F.R. 1.321 is attached hereto.

### **Rejections under 35 U.S.C. §103**

#### **Claims 1, 3, and 6-12**

Claims 1, 3, 6-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Papay et al. U.S. Patent No. 6,517,542 (Papay) in view of U.S. Patent No. 5,891,168 issued to Thal ("Thal").

In order to establish a *prima facie* case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Furthermore, according to § 2143 of the Manual of Patent Examining Procedure, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or

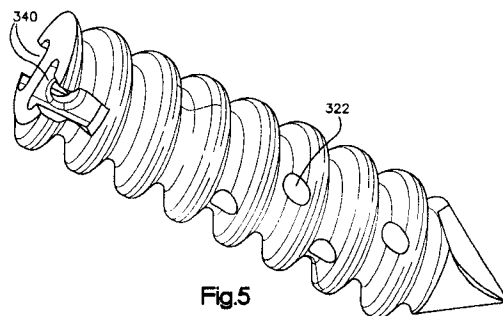
motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

*There is insufficient motivation to combine the cited references. The combination suggested would not have a reasonable expectation of success.*

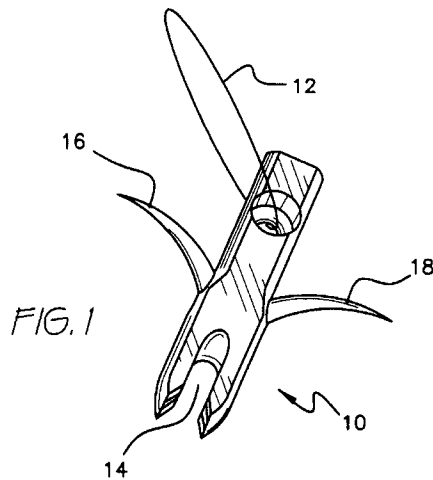
As an initial matter, the Office Action has failed to establish a prima facie case that there is any motivation to combine the references as suggested. The Papay reference is directed to a "self-boring, self-tapping bone screw." Col. 1, line 42. Each embodiment of Papay includes threads for attaching the anchor to bone and touts the elimination of the need for predrilling and/or tapping. See Col. 2, lines 35-36 and lines 61-62. The Office Action concedes that Papay does not teach a bone securing structure having a first, narrow profile and a second, larger radial profile. However, the Office Action contends that Thal:

"evidences the use of a bone securing structure with such a profile to facilitate the attachment of the anchor to bone. Therefore, giving the teaching of Thal, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Papay et al. as taught by Thal to facilitate the attachment of anchor to bone."

Applicant strongly traverses this logic. A representative Figure 5 of an anchor taught by Papay is shown below:



A representative figure of the anchor of Thal with prongs 16 and 18 is shown below:



The Papay device already includes sufficient structure to attach the anchor to bone: “screw threads 48 for allowing bone screw 42 to be securely mounted in a bone.” Col. 3, lines 15-16. The addition of the prong elements 16 and 18 to the anchor of Papay 1) would be unnecessary, 2) would retard the benefits of the features of the Papay device and 3) would likely lead to ineffective results. Specifically, if the prongs of Thal are added to the Papay device and if the device is then screwed into bone, the prongs of Papay will correspondingly rotate as the anchor penetrates bone. The prongs will either cut through a large diameter of bone (preventing the screw thread from fully engaging the bone), would collapse in on themselves or would shear off. The other alternative would be to insert the Papay anchor with prongs into a large bone tunnel as shown in Thal—however, the threads of Papay would then be unused and the advantage of not having to pre-drill or tap would no longer exist. As such, in addition to insufficient motivation to combine, the proposed combination is not likely to be successful.

*The Papay reference does not teach a plurality of suture retaining apertures.*

The Office Action contends that Papay discloses: “at least three suture retaining apertures (74) (capable of being used as suture retaining apertures) axially spaced along the axis in the anchor body...” However, Applicant notes that the holes of Papay are not intended to hold a suture and would be ineffective for such a purpose. Papay states: “Through-holes 74 are provided to enhance

the osteogenesis process—i.e., to foster bone growth into the interior of the bone screw.” Col. 4, lines 10-12. While it might be possible to pass a suture through one of the through-holes, said suture would then be twisted or damaged following implantation and may prevent the threads of the anchor from properly interfacing with the bone. Additionally, the presence of a suture in the through-hole would likely prevent the through hole from performing their intended function, which is to facilitate bone ingrowth.

*The Office Action fails to cite to Papay with particularity.*

Applicant notes that the Office Action has not cited with any particularity to the portions of Papay which it contends disclose the limitations of the rejected claims. Instead, the office action has cited to “column 2, lines 30-67, column 3, lines 1-67, column 4, lines 1-67, column 5, lines 1-67 and as best seen in FIGS. 1-25.” Applicant notes that this citation refers to all of the figures and the entire description of the Papay. Applicants request that any future Office Action cite with particularity to the portions or elements of the cited reference which are contended to read on the applicable claim elements. For example, Claim 9, depending from claim 1, recites a planar surface on the anchor body through which the suture retaining apertures extends. Papay includes no such planar surface but it is impossible for Applicant to determine which element of Papay the Examiner believes to read on this feature, to make an appropriate analysis and respond accordingly.

For at least the reasons discussed above, the cited combination cannot render obvious Claims 1, 3 and 6-12. Applicant requests reconsideration, withdrawal of the rejections and full allowance of Claims 1, 3, and 6-12.

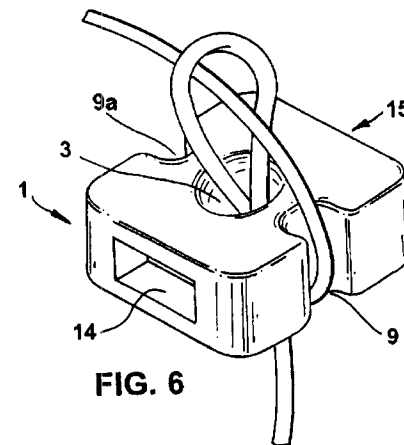
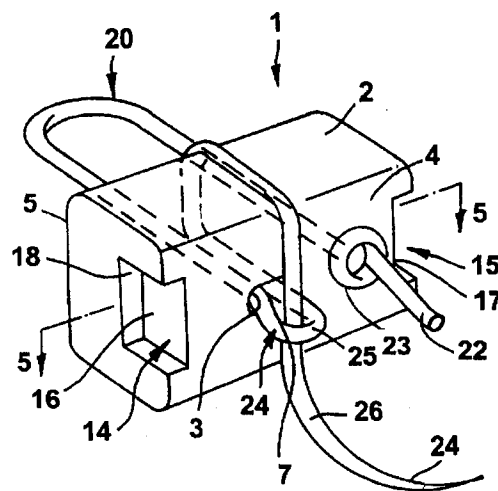
#### Claims 16, 18, 21-24

Claims 16, 18, 21-45 were rejected under 35 U.S.C. §103(a) as being unpatentable over Martin U.S. Patent No. 5,693,060 (Martin) in view of U.S. Patent No. 5,891,168 issued to Thal (“Thal”). Applicants respectfully traverse.

*The Martin Device is not a bone anchor.*

The Office Action contends that “Martin discloses a bone anchoring device for attaching connective tissue to bone...”. This is simply incorrect. The device described by Martin is used to

form a snare or ligature. See Col. 5, lines 6-7. Following tightening of the suture, “[d]evice 1 can then be pushed along suture 20 to a site where the tissue abutting side 5 comes into contact with the sutured body tissue.” Col. 5, lines 47-49. In a different embodiment, “two devices in accordance with the invention may be used to secure a suture along an elongate wound.” Col. 5, 64-66. Martin provides no embodiments in which the device is inserted into a bone tunnel nor would one skilled in the art be likely to perceive the rectangular block geometries (shown below) to be effective for application as a bone anchor. In other words, the device of Martin is used to aid in forming a snare or ligature around a tissue, but is not used to secure that tissue to bone.



Use of this device is predicated on pushing the device along a suture to secure a loop or ligature. Col. 5, lines 47-49. Applicants respectfully submit that this could not be practical if the device were fixed within a bone.

Applicant also notes that the inexact citation practice of citing to the entire description and all of the Figures used with respect to Papay was also employed with respect to the Martin reference. Greater specificity is kindly requested.

For at least these reasons Applicant submits that the Office Action has failed to support a prima facie case of obviousness with respect to Claims 16, 18 and 21-24. Applicants request reconsideration, withdrawal of the rejections and full allowance of Claims 16, 18 and 21-24.

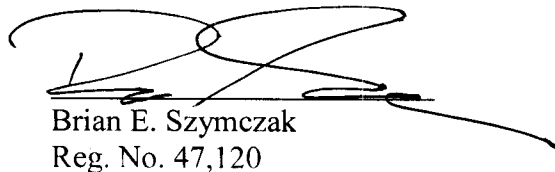
### CONCLUSION

Applicants have made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. Applicants respectfully request reconsideration of the pending claims.

The Commissioner is hereby authorized to charge fees necessary for the extension of time and the RCE or credit any overpayment to Deposit Account No. 50-0359 of ArthroCare Corporation in order to effectuate this filing.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.391.3961.

Respectfully submitted  
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Date: 1-22-2008

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